

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

690 Walnut Ave.St. 150

Vallejo, CA 94592-1133

(707) 649-5453

(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-018365**Date Inspected:** 18-Nov-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Mr.Xu Le Fung.**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower and Orthotropic Box Girder (OBG)**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

NDT

Tower Trial Assembly:

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as Tower backfill plate. The weld designations reviewed are as follows.

ESD1-FASA4-2B/E-26, 27

ESD1-FASA4-2B/E-28

WSD1-FASA4-2B/E-26, 27

WSD1-FASA4-2B/E-28

WSD1-FESA4-4B/F-7

WSD1-FESA4-4B/F-20

ESD1-FESA4-2B/E-8

ESD1-FESA4-2B/E-28

NDT Notification No-07398

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BAY 11:

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as OBG Bike Path. The weld designations reviewed are as follows.

BK005B6-004-009, 155,	BK005B8-004-003, 026, 004, 008, 010
BK005B6-004-005, 027, 006, 156, 128,	BK005B8-004-038, 129, 125, 042
BK005B4-004-009, 060, 160,	BK005B3-004-060,
BK005B4-004-023, 024,	BK005B8-004-035

NDT Notification No-07402

BAY 10:

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as OBG Bike path. The weld designations reviewed are as follows.

BK004A2-026-016, 018
NDT Notification No-07406

BAY 10

This QA Inspector performed randomly Visual Inspection of the area previously tested and accepted by ZPMC Quality Control personnel. The member is identified as OBG Bike Path. The weld designations reviewed are as follows.

BK004A-025
NDT Notification No-07397

This QA Inspector observed the following work in progress:

BAY 10:

OBG Bike path, FCAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 052075, 040533, 040302 Perform Flux Core Arc Welding (FCAW) on OBG Bike path bottom cover plate plug weld. Joint identified as BK004A-028-015, 019, 020. ZPMC QC Identified as Yu Zhi Lai. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132-Plug. For more information see below attached picture number 1.

This QA Inspector observed ZPMC qualified welding personnel identified as 040533, 040302 Perform Flux Core Arc Welding (FCAW) on OBG Bike path. Joint identified as BK004A6-025-002, 007. ZPMC QC Identified as Yu Zhi Lai. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2332-Tc-P4-F.

OBG FCAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 057180 Perform Flux Core Arc

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Welding (FCAW) on U Rib splice plate. Joint identified as GGL-MQ-2021-22-1, 2. ZPMC QC Identified as Li Peng Fei. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2232-Tc-U4b-F.

OBG Repair welding, FCAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 040458 Perform Flux Core Arc Welding (FCAW) on OBG U Rib splice plate. Joint identified as GGL-MQ-1958-22-1. ZPMC QC Identified as Li Peng Fei with temporary welding repair report WRR-B-WR17174. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-FCAW-1G (1F) Repair.

Magnetic Particle Testing:

This QA Inspector observed ZPMC Magnetic Particle Testing Inspector, performed MT on OBG Bike path stringer plate to deck plate weld. Joint identified as BK004A-032, 8A, 9C, 10A. For more information see below attached picture number 2.

BAY 11:

Tower SMAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 054460, Perform Shielded Metal Arc Welding (SMAW) on Tower Bracket Stiffener lift 5. Joint identified as SD1-BRSA5-1-19B. ZPMC QC Identified as Xu Jie. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-Tc-U5b.

OBG Repair welding, SMAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 040655 Perform Shielded Metal Arc Welding (SMAW) on OBG Bike Path. Plate identified as BK005B-004-10A, 9A. ZPMC CWI Identified as Yu Dong Ping with temporary welding repair report WRR-B-WR14886. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-SMAW-3G (3F) Repair.

OBG FCAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 040723, 053316 Perform Flux Core Arc Welding (FCAW) on OBG Bike Path. Joint identified as BK004ASD1-020-001, 002, 003, 004, 022, 023, 024, 027. ZPMC CWI Identified as Yu Dong Ping. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2331-Tc-U4c-F.

Ultrasonic Testing:

This QA Inspector observed AB/F Ultrasonic Testing Inspector, performed UT on Tower lift 5 Bracket stiffener plate. Joint identified as ND1-BRSA5-2-19A/B.

BAY 10, Green Tagging

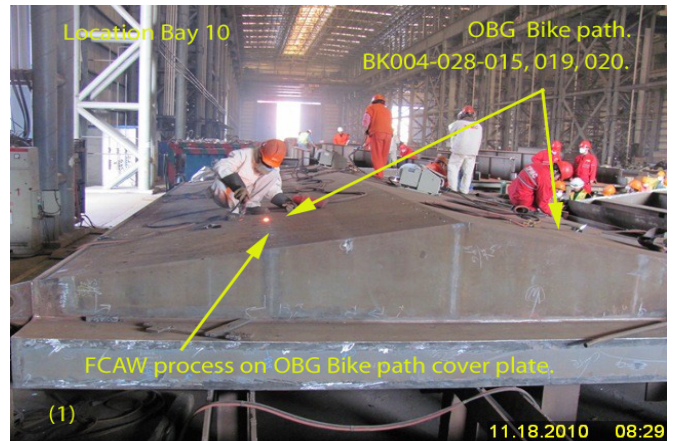
This QA inspector performed Visual Inspection for Green Tagging which were previously tested and accepted by ZPMC Quality Control personnel Mr. Xu Le Feng and ABF QA personnel Mr. Liu Cheng. The members are identified as OBG Bike Path BK004A1-025. The green Tag number is identified as # 13773.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable

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contract documents.



Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Thomas Ho phone : 150002048250, who represents the Office of Structural Materials for your project.

Inspected By: Gaikwad,Shailesh

Quality Assurance Inspector

Reviewed By: Clifford,William

QA Reviewer